

In the Claims:

Please amend claims 1, 8, 14 and 17 as follows:

1. (Currently Amended) A method of providing error detection and correction of transmission of data units between a sending and a receiving agent connected together in a network or computer interconnect environment, the data units having a predetermined size, a control portion and an information portion, the method comprising:

the sending agent inserting a sequence identifier in each data unit;  
the receiving agent examining the sequence identifiers of the data units to determine the sequence of data units being received~~by the receiving agent~~; and,  
the receiving agent initiating a communication with the sending agent only if the receiving agent determines that a received data unit has an incorrect sequence identifier, in which event the receiving agent requests~~requesting~~ the sending agent to resend a data unit for which it is determined that the sequence identifier is incorrect.

2. (Original) A method as defined in claim 1 wherein said predetermined size is within the range of about 64 to about 256 bits.

3. (Original) A method as defined in claim 2 wherein said predetermined size is about 128 bits.

4. (Original) A method as defined in claim 1 wherein said sequence identifier is a number that is changed in a predictable manner for each successive unit.

5. (Original) A method as defined in claim 1 wherein said number incremented by a known value for each successive unit.

6. (Original) A method as defined in claim 1 wherein said sequence identifier is inserted in the control portion of the data unit.

7. (Original) A method as defined in claim 1 further comprising retaining a replica of each data unit for a period of time necessary for said examining step to determine that the sequence identifier for a transmitted data unit is correct and discarding said replica when said sequence identifier for the transmitted data unit is correct.

8. (Currently Amended) A method of providing error detection and correction of transmission of data packets comprising at least two flits between sending and receiving agents connected together in a network or computer interconnect environment, the flits being of a predetermined size, and having a control portion and an information portion, the method comprising:

the sending agent embedding a sequence identifier in each flit prior to transmission by a sending agent;

the sending agent sending each flit to a connected receiving agent;

the receiving agent examining the sequence identifiers of each flit to determine the sequence of flits being received ~~by the receiving agent~~; and,

the receiving agent initiating a communication with the sending agent only if the receiving agent determines that a received flit has an incorrect sequence identifier, in which event the receiving agent requests the sending agent to resend a flit for which it is determined that the sequence identifier is incorrect~~requesting the sending agent to resend a flit for which the sequence identifier is determined to be incorrect.~~

9. (Original) A method as defined in claim 8 further comprising the step of holding a copy of each flit for a period of time necessary for said examining step to determine that the sequence identifier for a transmitted flit is correct and discarding said copy when said sequence identifier for the transmitted flit is correct.

10. (Original) A method as defined in claim 8 wherein said predetermined size is within the range of about 64 to about 256 bits.

11. (Original) A method as defined in claim 10 wherein said predetermined size is about 128 bits.

12. (Original) A method as defined in claim 8 wherein said sequence identifier is a number that is changed in a predictable manner for each successive unit.

13. (Original) A method as defined in claim 8 wherein said number incremented by a known value for each successive unit.

14. (Currently Amended) A method for providing error detection and correction of transmission of data units between sending and receiving agents connected in a network or computer interconnect environment, the data units being of a predetermined size and having a control portion and an information portion, the method comprising:

- the sending agent inserting a sequence identifier in each data unit;
- the sending agent sending the data unit to the receiving unit;
- the sending agent retaining a replica of the data unit in a memory;
- the receiving agent examining the sequence identifiers of each data unit to determine the sequence of data units being received by the receiving agent;

the receiving agent initiating a communication with the sending agent only if it is determined that a received data unit has an incorrect sequence identifier, in which event the receiving agent requests the sending agent to resend a data unit for which it is determined that the sequence identifier is incorrect~~the receiving agent requesting the sending agent to resend a data unit for which the receiving agent determined the sequence identifier to be incorrect.~~

15. (Original) A method as defined in claim 14 wherein said sequence identifier is inserted in the control portion of the data unit.

16. (Original) A method as defined in claim 14 wherein said predetermined size is about 128 bits.

17. (Currently Amended) A system for providing error detection and correction of transmission of data units in a network or computer interconnect environment, the data units being of a predetermined size and having a control portion and an information portion, the system comprising:

a sending agent for inserting a sequence identifier in each data unit to be sent, the sending agent retaining a replica of the data unit in a memory;

said sending agent sending the data unit to the receiving unit;

a receiving agent for receiving each data unit, the receiving unit examining the sequence identifiers of each data unit to determine the sequence of data units being received thereby;

said receiving agent initiating a communication with said sending agent only if it is determined that a received data unit has an incorrect sequence identifier, in which event said receiving agent requests said sending agent to resend a data unit for which said receiving agent determined that the sequence identifier is incorrect~~said receiving agent requesting said sending agent to resend a data unit for which said receiving agent has determined the sequence identifier to be incorrect.~~

18. (Original) A system as defined in claim 17 wherein said predetermined size is about 128 bits.

19. (Original) A system as defined in claim 17 wherein said sequence identifier is inserted in the control portion of the data unit.